

# 6JZ8

## Medium-Mu Triode— Beam Power Tube

### DUODECAR TYPE

#### Electrical:

##### Heater Characteristics and Ratings:

Voltage (AC or DC) . . . . .	6.3 ± 0.6	volts
Current at heater volts = 6.3 . . . . .	1.200	amp
Peak heater-cathode voltage (Each unit):		
Heater negative with respect to cathode . . . . .	200	max. volts
Heater positive with respect to cathode . . . . .	200 <sup>a</sup>	max. volts
Direct Interelectrode Capacitances (Approx.): <sup>b</sup>		

##### Triode Unit:

G <sub>T</sub> to P <sub>T</sub> . . . . .	3.6	pf
Input: G <sub>T</sub> to (K <sub>T</sub> , H) . . . . .	2.2	pf
Output: P <sub>T</sub> to (K <sub>T</sub> , H) . . . . .	0.7	pf

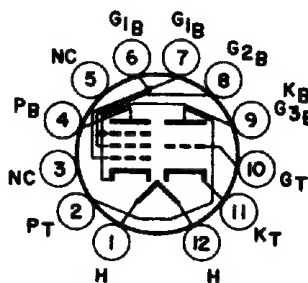
##### Beam Power Unit:

G <sub>1B</sub> to P <sub>B</sub> . . . . .	0.34	pf
Input: G <sub>1B</sub> to (K <sub>B</sub> +G <sub>3B</sub> , G <sub>2B</sub> , H) . . . . .	11.0	pf
Output: P <sub>B</sub> to (K <sub>B</sub> +G <sub>3B</sub> , G <sub>2B</sub> , H) . . . . .	7.0	pf

#### Mechanical:

Operating Position . . . . .	Any
Types of Cathodes . . . . .	Coated Unipotential
Maximum Overall Length . . . . .	2.375"
Seated Length . . . . .	1.750" to 2.000"
Diameter . . . . .	1.062" to 1.188"
Dimensional Outline . . . . .	See General Section
Bulb . . . . .	.T9
Base . . . . .	Small-Button Duodecar 12-Pin (JEDEC No. E12-70)
Basing Designation for BOTTOM VIEW . . . . .	12DZ

- Pin 1—Heater
- Pin 2—Triode Plate
- Pin 3—No Internal Connection
- Pin 4—Beam Power Plate
- Pin 5—Same as Pin 3
- Pin 6—Beam Power Grid No.1
- Pin 7—Beam Power Grid No.1
- Pin 8—Beam Power Grid No.2
- Pin 9—Beam Power Cathode,  
Beam Power Grid No.3
- Pin 10—Triode Grid
- Pin 11—Triode Cathode
- Pin 12—Heater



#### Characteristics, Class A<sub>1</sub> Amplifier:

	Triode Unit	Beam Power Tube	
Plate Voltage . . . . .	150	45 120	volts
Grid-No.2 Voltage . . . . .	—	110 110	volts
Grid-No.1 Voltage . . . . .	—5	0 —8	volts
Amplification Factor . . . . .	20	— —	



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# 6JZ8

	Triode Unit	Beam Power Tube	
Plate Resistance (Approx.) . . . . .	8500	- 1700	ohms
Transconductance. . . . .	2350	- 1400	$\mu$ mhos
Plate Current . . . . .	5.5	122 46	ma
Grid-No.2 Current . . . . .	-	16.5 3.5	ma
Grid-No.1 Voltage (Approx.) for plate $\mu a=10$ . . . . .	-11	- -	volts
100. . . . .	-	- -25	volts

## VERTICAL-DEFLECTION OSCILLATOR

### Triode Unit

#### Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system<sup>c</sup>

DC Plate Voltage. . . . .	250 max.	volts
Peak Negative Pulse-Grid Voltage. . . . .	400 max.	volts
Cathode Current:		
Peak. . . . .	70 max.	ma
Average . . . . .	20 max.	ma
Plate Dissipation . . . . .	1 max.	watt

#### Maximum Circuit Values:

##### Grid-Circuit Resistance:

For fixed-bias operation. . . . .	1 max.	megohm
For cathode-bias operation. . . . .	2.2 max.	megohms

## VERTICAL-DEFLECTION AMPLIFIER

### Beam Power Unit

#### Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system<sup>c</sup>

DC Plate Voltage. . . . .	250 max.	volts
Peak Positive-Pulse Plate Voltage . . . . .	2000 max.	volts
Grid No.2 Voltage . . . . .	200 max.	volts
Cathode Current:		
Peak. . . . .	245 max.	ma
Average . . . . .	70 max.	ma
Plate Dissipation <sup>d</sup> . . . . .	7 max.	watts
Grid-No.2 Input . . . . .	1.8 max.	watts

#### Maximum Circuit Values:

##### Grid-Circuit Resistance:

For fixed-bias operation. . . . .	1 max.	megohm
For cathode-bias operation. . . . .	2.2 max.	megohms

<sup>a</sup> The dc component must not exceed 100 volts.

<sup>b</sup> Without external shield.

<sup>c</sup> This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.

<sup>d</sup> In stages operating with grid-leak bias, an adequate cathode-bias resistor or other suitable means is required to protect the tube in the absence of excitation.

